ZASTONE

ZT-V900

使用说明书
INSTRUCTION MANUAL

CONTENTS

PRECAUTIONS

SAFETY

Please observe the following precautions to prevent the transceiver damaged:

▲ This device emits Radio Frequency (RF) energy. Caution should be observed when operating this device.

▲ Do not modify this transceiver unless instructed by this manual.

▲ Never hold the antenna of the transceiver while transmitting.

▲ Never operate the transceiver with an earphone at high volume level, hearing experts advise against continuous high volume operation.

▲ Never operate the transceiver while driving a vehicle, safe driving requires your full attention.

▲ Turn off your transceiver while taking on fuel, or while park in gasoline service station.

▲ Never expose the transceiver to rain, wet areas, or any liquids, the transceiver may be damaged.

▲ Do not operate the transceiver near unshielded electrical blasting caps or in an explosive atmosphere.

▲ Be careful when operating the transceiver for a continuously periods of time the body will become hot.

▲ Avoid the use of chemical agents when cleaning, as they can damage the surface of the transceiver.

▲ If an abnormal odor or smoke is detected coming from the transceiver, turn OFF the power immediately and remove the battery-pack from the transceiver. Contact a our service station or your dealer.

UNPACKING AND CHECKING EQUIPMENT

Carefully unpack the transceiver. We recommend: You identify the items listed in the following table before discarding the packing material. If any item is missing or has been damaged during shipment, file a claim with the carrier immediately.

SUPPLIED ACCESSORIES

ITEM	QUANTITY
Rubber Antenna	1
Li-ion Battery Pack	1
Desktop Charger	1
Belt Clip	1
User's Manual	1

Key Features

>> Full Frequency and 128 Memory Channels

>>Built-in CTCSS/DCS Function

>>VOX Function

>>Radio function, store up to 25 radio channels

>>Call End Prompting Function

>>Dual Display Function

>>Dual/Single Standby Switchable

>>ANI Function

>>PC Programming

GETTING ACQUAINTED

Antenna

Alarm Key

Power switch/
Volume control

TX/RX Indicator

Loudspeaker

Microphone

LCD Display

Keypad

PTT Key

Speaker Jack

MONI key

Microphone Jack
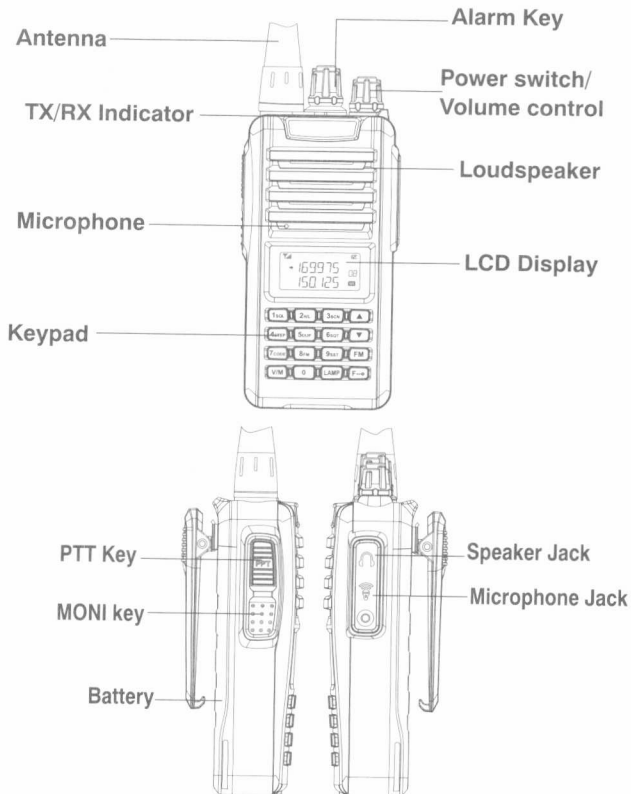
Battery

CHARGING BATTERY

Plug the battery or transceiver with battery into charger, and make sure the battery contact with charging terminal. When the charging light turn red, charging has begin, and while the charging light turn green, charging has finished. Please do not keep charging over 20 hours, please pull out the plug while finished charging.

INSTALLING/REMOVING THE BATTERY PACK

The average life of the supplied battery pack is 8 hours. Average times are calculated using 5% transmit time, 5% receive time, and 90% standby time.
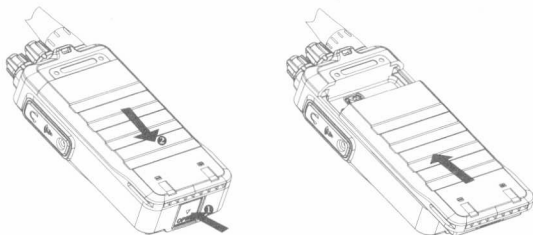
INSTALLING THE ANENNA

Screw the antenna into the connector on the top of the transceiver by holding the antenna at its base and turning it clockwise until secure.

Note:

The antenna is neither a handle, a key ring retainer, nor a speaker/microphone attachment point. Using the antenna in these ways may damage the antenna and degrade your transceiver's performance.

INSTALLING THE BELT CLIP

If necessary, attach the belt clip using the two supplied 3 x 8mm screws.

Note:

If the belt clip is not installed, it's mounting location may get hot during continuous transmission or when left sitting in a hot environment.

You must remove the belt clip before removing the battery pack.

INSTALLING THE OPTIONAL SPEAKER/MICROPHONE

Outward apart the moisture-proof rubber of the headphone mouth.

Insert the speaker/microphone plugs into the speaker/microphone jacks.

Note:

The transceiver is not fully water resistant while using the speaker/microphone.

Basic Transceiver Modes

FREQUENCY DISPLAY MODE(VFO)

In this mode, you can use [▲] / [▼] key or knob to change frequency, or use the numeric keypad to enter.

CHANNEL OPERATING MODE(MR)

In VFO mode, press [V/M] key to enter the channel operating mode, the LCD above numbers indicate the current working channel. You cannot access this mode unless you program one memory channel at least.

Quick Operating

1. Press [F-o] key, LCD "F" is flashing, then press the number keys 0 ~ 9 to enter the Quick Operating.
2. Press [▲] / [▼] key to select operation.
3. Press any other key outside [LAMP]/ [MONI] to complete the set.

Key	Function	Selection	default
Func+1	Set SQ Level	0~9 level	OFF
Func+2	Set Transmitting Power	1-3 (Low/Mid/High)	3
Func+3	Access Scanning	———	
Func+4	Setting Step Frequency	5K/6.25K/10K/ 12.5K/25K/37.5K/ 50K/ 100K	25K

Func+5	Setting Offset Direction	No/+/-	No
Func+6	Setting QT / DQT Switch		OFF
Func+7	Select QT / DQT Frequency	QT / DQT Frequency	OFF
Func+8	Enter Radio Mode	Radio Operating Mode ←→Transceiver Operating Mode	Transceiver Mode
Func+9	Setting Menu	———	———
Func+0	Channel Scanning, Delete, Add		

Quick Function Operating

SET SQ LEVEL

- Select no signal, the background noise is eliminated
- The larger number you choose, the greater strength is required when receive signal.

SET TRANSMITTING POWER

- 3:High Power   2:Mid Power   1:Low Power

ACCESS SCANNING

- In VFO mode, enter the full frequency scanning
- In MR mode, enter the channel scanning

SETTING STEP FREQUENCY

- This function is not available in MR mode
- There are 8 step frequency modes 5K/6.25K/10K/12.5K/2 5K/37.5K/50K/100K

SETTING OFFSET DIRECTION

Simplex ——▶ + ——▶ -

- This function is only valid in VFO mode

SETTING QT / DQT SWITCH

- Press [F-o]+[6sqt] to enter setting signal switch, press [▲]/ [▼] to select, LCD indicate transmitting or receiving signal type
- Then press [F-o]to complete the setting

SELECT QT / DQT FREQUENCY

- Press [F-o]+[6sqt] to set the QT/DQT switch, then you can choose QT/DQT frequency.
- Press [▲]/ [▼] key, select the required QT/DQT frequency
- Then press [F-o] to select QT / DQT transmitting frequency, press the [▲]/ [▼] to select
- Press [F-o] to complete the setting

QT Standard Frequency Table

67.0	85.4	107.2	136.5	165.5	186.2	210.7	254.1
69.3	88.5	110.9	141.3	167.9	189.9	218.1	
71.9	91.5	114.8	146.2	171.3	192.8	225.7	
74.4	94.8	118.8	151.4	173.8	196.6	229.1	
77.0	97.4	123.0	156.7	177.3	199.5	233.6	
79.7	100.0	127.3	159.8	179.9	203.5	241.8	
82.5	103.5	131.8	162.2	183.5	206.5	250.3	

There are 107 groups DCS for option, here list 83 groups as below:

023	051	114	143	174	251	315	371	445	532	631	723
025	054	115	152	205	261	331	411	464	546	632	731
026	065	116	155	223	263	343	412	465	565	654	732
031	071	125	156	226	265	346	413	466	606	662	734
032	072	131	162	243	271	351	423	503	612	664	743
043	073	132	165	244	306	364	431	506	624	703	754
047	074	134	172	245	311	365	432	516	627	712

Enter Radio Mode

- When the radio is turned on, the screen displays the current frequency of the radio

- Press [▲]/ [▼] to change the radio frequency, also can be directly input it with keypad (Frequency range: 87.500~107.875MHz)

- Press [F··o] + [8FM] again to exit the radio

ENTER THE MENU MODE, THE SPECIFIC PLEASE REFER: V. MENU MODE

To switch the dual / single standby working mode, the specific please refer: VII. Dual Standby Mode

Menu Mode

1. Press [F-o] , LCD "F" is flashing, and press [9sat] to enter the Menu Mode
2. Use [▲]/ [▼] to select the item to be set
3. Press [F-o] to enter the Menu Setting, use [▲]/ [▼] to select the content, and press [F-o] to complete the setting
4. Press [V/M] to exit the Menu Mode

MENU LIST

Menu Item	Display and Description	Content Setting
1	Automatic Power Off	OFF,1~15 Hours
2	Bank of Channel	BANK,NO BANK
3	Battery Saver	ON/OFF
4	Busy Channel Lock Out	ON/OFF
5	Keypad Beeper	ON/OFF
6	DC Voltage	Display the current voltage
7	Dual Watch When Use FM Radio(RA-DW)	ON/OFF

Menu Item	Display and Description	Content Setting
8	Backlight control	OFF/KEY/CONT
9	Transceiver Lock Mode	K+S/PTT/KEY/ALL
10	ANI Code Switch	ON/OFF
11	Modes of Channel Display	FREQ/ALPHA
12	ANI Reverse	ON/OFF
13	Offset Frequency for Duplex	VHF (00.000-37.995MHz) UHF (00.000~69.995MHz)
14	Power On Display	OFF/DC/MSG
15	Power-on Password	ON/OFF
16	Power-on Password Setting	Edited by Users
17	Roger Tone	ON/OFF
18	Scan Methods	TO/CO
19	Squelch Tail Elimination	ON/OFF
20	Time-Out Timer	OFF, 1~7 minutes
21	Transmitting Inhibit Function	ON/OFF
22	Hands-free VOX Function	ON/OFF
23	VOX Delay Time	1S,2S,3S,4S
24	VOX Sensitivity	1~8
25	Voice Switch	ON/OFF
26	Wide/Narrow Bank Selection	NARR/WIDE

Menu functions and setting

AUTOMATIC POWER OFF(APO)

If the APO function is turned on, the radio without any operation or did not receive any signal, after the setting time passes, APO will automatically turn off the power

BANK OF CHANNEL(BANK)

• If this function is on, the 128 channel will be divided into 8 groups

The Channel No. 1-16 will appear BANK 1

The Channel No. 17-32 will appear BANK 2

The Channel No. 33-48 will appear BANK 3

The Channel No. 49-64 will appear BANK 4

The Channel No. 65-80 will appear BANK 5

The Channel No. 81-96 will appear BANK 6

The Channel No. 97-112 will appear BANK 7

The Channel No. 113-128 will appear BANK 8

• When turn off this function, will normal display the corresponding 1~128 channel.

BATTERY SAVER

• When the battery saver function is turned on, it will reduce the power consumption if not receive a signal or no operation (no keys are being pressed and no switches are being turned).

BUSY CHANNEL LOCK OUT (BCLO)

- When receiving a signal, if the BCLO function is on, it will forbid transmitting a signal in order to make sure the channel no interference.

KEYPAD BEEPER(BEEP)

- The beeps when you press a key on the keypad.

DISPLAY THE DC VOLTAGE (DC VLT)

- The menu can check the current voltage

DUAL WATCH WHEN USE FM RADIO (RA-DW)

- When the radio is used, and turns on the function, the LCD left displays "DW". If the transceiver receives a signal, it will automatically switch FM radio OFF, the LCD upper right "R" is flashing to receive a signal; 5 seconds after stop receiving the signal, the FM radio function will automatically switch ON again. When the DW function switches OFF, the transceiver will not receive any incoming signal.

BACKGROUND LAMP CONTROL

- **OFF:** Turn off the background lamp, the keypad and LCD display will not keep lighting without any operation.
- **AUTO:** When you press any key, the background lamp and LCD display will turn on and keep for 5 seconds.
- **ON:** When turn on the transceiver, the background lamp and LCD display will keep lighting.

TRANSCEIVER LOCK MODE(LOCK)

- Press [F...o] key for 2 seconds, you can lock the keys do not want to use. There are 4 modes of transceiver lock.
- **K+S:** The keypad and up/down key to be locked
- **PTT:** Only lock the PTT key
- **KEY:** Only lock the keypad except up/down key
- **ALL:** Lock all the keys and cannot be operated

ANI CODE SWITCH (ANI)

- If turn on the function, the transceiver will display ID when receiving.

MODES OF CHANNEL DISPLAY SELECTIVE

- **ALPHA:**Display the channel name which is edited by yourself.
- **FREQ:**Display the frequency

ANI REVERSE (ANI-RE)

- When turn on ANI function, it will transmit the ANI Reverse ID after launching

OFFSET FREQUENCY FOR DUPLEX (OFFSET)

- Input an offset frequency directly from keypad

POWER ON DISPLAY

- **OFF:** Turn on normal, without opening message.
- **DC:** Display the current DC voltage

- Display opening message

POWER-ON PASSWORD

- Please access Menu No.15 to switch the Password Protection ON/OFF. You have to access Menu No.16 to input 4 numbers password before using the function.

ROGER TONE

- Turn ON/OFF the Roger Tone

SCAN METHODS(SCAN)

- Time-Operated Scan
- Carrier-Operated Scan

TIME-OUT TIMER (TOT)

- When the transceiver continuous emission over the TOT set time, it will automatically stop transmission. Up to the limit time will make a warning beep sound.

TRANSMITTING INHIBIT FUNCTION

- When the function is turned on, the current working frequency will not launch.

VOX DELAY TIME(VOX- D)

- If restore the receive mode too quickly after launch, the latest emission will not be transmitted. In order to avoid the situation, you can adjust the VOX delay time.

VOX SENSITIVITY

- Voice grade is lower, the higher the sensitivity

Channel Setting

STORAGE CHANNEL / FREQUENCY INFORMATION

- In VFO mode, select the frequency and other information (frequency offset, different frequency, QT / DQT, voice encryption, voice compression, voice switches, channel bandwidth etc.)
- Press [F-o] , LCD "F" is flashing
- Press [▲]/ [▼] to select the memory channel number for storing (when the memory channel number is flashing, indicating that the memory channel has stored.)
- Press [V/M] to complete the storage

DELETE MEMORY CHANNELS

- Select the memory channels to delete
- Turn off the radio
- Press [F-o] key switch on, the LCD display menu
- Press [▲]/ [▼] key to select MEMCLR, then press [F-o] to confirm to delete the memory channel.

CHANNEL DISPLAY FUNCTION

When the function is turned on, the transceiver only display the memory channel number, do not display frequency

- Press [F-o] to turn on the transceiver

• Press [▲]/ [▼] to select M-ONLY Menu, and press[F··o] to complete setting.

CHANNEL INITIALIZING

If your transceiver be malfunctioning, initialize transceiver may solve the problem. Initializing will delete all memory channels.

• Partial Initializing

Use to initialize all settings except the memory channels and memory channel lockout.

　1. Press [F··o] to turn on the transceiver

　2. Press [▲]/ [▼] to select SETRST Menu,

　3. Press [F··o] twice to complete the setting

• Full Initialization

Use to initialize all setting

　1. Press [F··o] to turn on the transceiver

　2. Press [▲]/ [▼] to select [ALLRST] Menu

　3. Press [F··o] twice to complete the setting

FM Radio Function

TURN ON THE RADIO

• Press [F··o] + [8FM] or FM key, the radio is turned on. Again press [F··o] + [8FM] or FM key the radio is off.

- Press [▲]/ [▼] key to change the radio frequency, also can be directly input the radio frequency with keypad. Frequency range: 87.500~107.875MHz

FM RADIO MEMORY CHANNEL STORAGE

- In VFO mode, select the desired radio frequency
- Press [F-o] , LCD "F" is flashing and a memory channel number appears
- Press [▲]/ [▼] to select the memory channel number for storing, when the channel number is flashing, indicating that the channel has stored.
- Press [V/M] to complete the storage

FM RADIO MEMORY CHANNEL DELETE

- Select the radio channel to be deleted, if you want to delete the fifth radio channel, make the transceiver to enter the fifth channel, and turn off.
- Press [F-o] to turn on, press [▲]/ [▼] to select the menu "MEMCLR ". Then press [F-o] , the LCD display "RESET ". Again press [F-o] to confirm and press any other key to cancel.

Dual Standby Mode

1. Press [F-o] + [TDR] to turn on the dual standby function, press [F-o] + [TDR] again to turn off the function.
2. In dual standby mode, which means that the screen display two working channels at the same time; when turn off

it, the screen only display the current working channel.

3. In dual standby mode, if one of the channels receives a signal, and the mark will point to the channel, indicating the channel is currently being edited.

4. In dual standby mode, press **PTT** key, it will launch the currently edited channel.

5. Press **[TDR]** to switch the currently being edited channel.

ANI Function

- By using the programming software to edit the transceiver ID.

- By **[menu 10]** to turn on / off the ANI function. When the ANI function is turned on, and press **[PTT]** will launch the ID. When receiving other transceiver ID, it will display on the LCD. At this time, any other key except **[MONI]** can clear the ID.

- By **[menu 12]** to turn on / off ANI reverse function, it can be used to relay communication.

SPECIFICATIONS

Frequency Range	VHF:136~174MHz UHF:400~470MHz
Memory Channel	128
CTCSS/DCS	50 group CTCSS; 83*2 group DCS
Step	5KHz,10KHz,12.5KHz,20KHz,25KHz,30KHz,50KHz,
Modulation Mode	FM
Work Mode	Simplex
Antenna Impedance	50Ω
Voltage	DC7.4V
Ground Method	Negative Pole
Working Temperature	10°C~±55°C
Output Power	5W
Remanent Radiation	≤-60dB
Emission Current	≤0.8A
Modulation Limit	≤+5KHz
Modulation Sensitivity	2~20mV
Frequency Stability	±5ppm
Sensitivity	0.2uv
Audio Power	≥0.5w
Audio Distortion	≥10%
Audio Respond	300~3000Hz
Bandwidth	≤16KHz

WARRANTY CARD

Buyer Name		Telephone	
Address			
Dealer		Telephone	
Address			
Model		S/N Number	
Receive Date		Date of Send to repair	
Result			
Dealer Seal or Signature		Product test	Tester:_____

Note:

1. The product before sell all be tested and all passed. Use this warranty card for one year warranty. out of the warranty time repair will be asked charge.

2. The below condition are not in the free warranty: Natural Disasters, misuse. the damage by the drop. influent water. change the product.

3. The warranty card will invalid haven't write clearly. Please keep this warranty card. the warranty time will begin from the selling day.

ZASTONE

深圳即时通科技有限公司

**SHENZHEN ZASTONE
COMMUNICATION TEC. CO.,LTD.**